

Chain of Custody Record

Additional Matrix Codes: 30 Leachate 50 Sludge 60 Air

Matrix codes: these are the codes in use at the EPA Region 10 Laboratory. Pick the matrix code that best matches the sample matrix. If in the opinion of the sampler, the sample matrix needs to be specially described, select 00 and write in a matrix description. Remember, tissue can be animal or vegetable in nature.

If the write in area becomes filled, cross out one of the pre-printed analyses and write in what is needed. Try to use the bolded analyte symbol/abbreviation (some analyses are not abbreviated).

Organics pre-printed on the form:

PAH Polynuclear Aromatic Hydrocarbons (these are a subset of the compounds reported from GC-MS analyses for BNA - PAH by HPLC or SIM-GC/MS methods are usually requested in order to get low reporting limits). **Pest** Organochlorine Pesticides **PCB** Polychlorinated Biphenyls aka Aroclors **VOA** (aka VOC) - volatile organic compounds **BNA** (aka SVOC or SVOA) - semivolatile organic compounds

Organics that can be written in:

AED scan (detects chlorinated or brominated hydrocarbons) **Butyltins** Butyltins (mono, di, tri, tetra substituted) **CB Con** - Chlorinated Biphenyl Congener analysis **Chlor Hyd.** Chlorinated Hydrocarbons **Chlorophenols** **Gua/Cat** Guaiacols/Catechols scan **Herb** Herbicides **OP Pest** Organophosphorous Pesticides **PBDE** Polybrominated diphenylethers **Resin Acids** **TPH-Dx** Total Petroleum Hydrocarbons, diesel range **TPH-Dx-ext** Total Petroleum Hydrocarbons, diesel range extended to motor oil **TPH-Gx** Total Petroleum Hydrocarbons, gasoline range **TPH-HCID** Total Petroleum Hydrocarbons, identification **THMs** Trihalomethanes

Metals pre-printed on the form (underlined = 'CLP metals' - mercury must be separately requested):

Al aluminum Sb antimony As arsenic Ba barium Be beryllium B boron Cd cadmium Ca calcium Cr chromium Co cobalt Cu copper Fe iron Pb lead Mg magnesium Mn manganese Hg mercury Ni nickel K potassium Se selenium Ag silver Na sodium Sn tin Tl thallium V vanadium Zn zinc

Metals that can be written in and then circled under the box used for designating selected metals:

Au gold Cr+6 hexavalent chromium Mo molybdenum Sr strontium Ti titanium W tungsten Zr zirconium

Note: some metals may not be analyzed for on matrices other than soil/sed or water.

Microbiology Analyses pre-printed on the form:

E. Coli Escherichia coli **F. Coliform** Fecal Coliform **T. Coliform** Total Coliform

Microbiology Analyses that can be written in:

Enterococci **MPA** Microscopic Particulate Analysis for Determining GWUDI **G/C** Giardia/Cryptosporidium **Coliphage** **Staph a** Staphylococcus aureus

Toxicity Characteristic Leaching Procedure (TCLP) write in analyses³:

TCLP BNA **TCLP Herb** **TCLP Herbicides** **TCLP met+Hg** **TCLP metals** including mercury **TCLP met** **TCLP metals** not including mercury **TCLP Hg** **TCLP mercury** **TCLP Pest** **TCLP Pesticides** **TCLP VOA**

³ Analyses are normally only conducted for analytes with a TCLP regulatory criteria.

General analyses pre-printed on the form:

BOD Biochemical Oxygen Demand **NO₂+NO₃** Nitrite plus Nitrate **Oil & Grease** **TDS** Total Dissolved Solids **TSS** Total Suspended Solids

General analyses that can be written in:

Acidity **Alk** Alkalinity **TNH3** Ammonia **HCO₃** Bicarbonate **Br** Bromide **CO₃** Carbonate **COD** Chemical Oxygen Demand **Cl** Chloride **Color** Color **Cond** Conductivity **CN** Cyanide **CN-** W&D Cyanide, weak & dissociable **Flash** Flash Point **F** Fluoride **Grn Siz** Grain Size **Hard** Hardness **NO₂** Nitrite **NO₃** Nitrate **TNVS** Non-Volatile Solids **NVSS** Non-Volatile Suspended Solids **CLO** Perchlorate **pH** Phenol Phenolics **SiO₂** Silica - dissolved **SO₄** Sulfate **S** Sulfide **TOC** Total Organic Carbon **TS** Total Solids **% V Sids** % Volatile Solids **TVS** Volatile Solids **TVSS** Volatile Suspended Solids **SetSids** Settleable Solids **% Tot** % Total Solids **TKN** Total Kjeldahl Nitrogen **T-Phos** Total Phosphorous **D-Phos** Dissolved Phosphorous **O-Phos** Ortho Phosphorous **D-O-Phos** Dissolved Ortho Phosphorous **Turb** Turbidity

Container guidance.

Note: this is general information only - consult the QA Project Plan on appropriate containers and preservatives for each project. Modifying methods may require modifying the number/type of containers. Freezing samples for one or more analyses may require collection of individual containers. Contact the laboratory for minimum sample volumes in situations where sample material is limited. Minimum volumes required for analysis will depend on the analysis and required reporting limits.

Containers for soil/sediment:

Metals/cyanide/mercury: 1, wide mouth 8 ounce glass or HDPE.

Extractable organics: 1, 8 ounce wide mouth amber glass, for one or two analyte groups

Inorganics and organics: 1, sixteen ounce wide mouth amber glass.

VOAs/purgeables: Contact the laboratory for the proper number/type of special Closed-System sample containers.

Containers/chemical preservatives for water⁴:

Metals/regular mercury: 1, one liter HDPE, HNO₃ to pH<2

Mercury by method 1631: HCl and 250 mL containers provided by MEL

Cyanide: 1, 250 mL or larger HDPE, remove sulfides and/or residual chlorine then add NaOH to pH>12

Extractable organics (BNA, Pest, PCP, PAH etc.): two, one liter amber glass containers for each analysis - if more than one liter will be extracted for the project, it is advisable that the container size match (but not exceed) the volume to be extracted. Two separate volumes are usually collected for each analysis to allow for re-extraction if needed.

VOAs/purgeables: 3, zero headspace 40 mL amber glass vials with Teflon Septa, remove residual chlorine then add HCl to pH<2

Alkalinity: 1, 250 mL or larger HDPE, no extra volume for lab QC

Ammonia: 1, 250 mL or larger HDPE, H₂SO₄ to pH<2, no extra volume for lab QC

BOD 5: 1, one gallon HDPE, no extra volume for lab QC

TSS: 1, one liter or larger HDPE, no extra volume for lab QC

TDS: 1, 250 mL or larger HDPE, no extra volume for lab QC

Oil & Grease: 1, one liter clear glass, HCl to pH<2, submit 4 **separate** containers for the lab QC sample

NO₂+NO₃: 1, 250 mL or larger HDPE, H₂SO₄ to pH<2, no extra volume for lab QC

Br, Cl, F, SO₄, CLO₄: for analysis by ion chromatography, 1, 100 mL or larger HDPE, no extra volume for lab QC

⁴ Water samples to be designated for lab QC should have double volume submitted for metals, triple volume for organics. In general, extra volume is usually not required for lab QC for soil/sediment.